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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,839	08/22/2001	Noboru Yanagida	213024US0	7276

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

REDDICK, MARIE L

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 04/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

HS

Office Action Summary	Application No. 09/933,839	Applicant(s) YANAGIDA, NOBORU	
	Examiner Judy M. Reddick	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/23/01;12/12/01;3/27/02;12/3/02;12/30/02
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3-6</u> | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Priority

1. *Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.*

Information Disclosure Statement

2. *The information disclosure statements filed 11/23/01, 12/12/01, 03/27/02 and 12/03/02 have been considered and placed in the application file. Further, the US Document 4,611,029 to Takahashi cited on the PTO FORM 1449(03/27/02), although crossed out, has been considered and cited on an earlier PTO FORM 1449(12/12/01).*

Claim Rejections - 35 USC § 112

3. *The following is a quotation of the second paragraph of 35 U.S.C. 112:*
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. *Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.*

The recited "wherein the alcohol-based solvent contains from 100 ppm to 3000 ppm water" per claim 6 constitutes indefinite subject matter as per it not being readily ascertainable as to whether the "water" is intended to further limit the antecedently recited "added water" or the antecedently recited "alcohol-based solvent".

Claim Rejections - 35 USC § 102

5. *The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:*

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. *The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:*

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. *Claims 1-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Moritani et al(U.S. 5,744,547).*

Moritani et al disclose and exemplify processes for producing saponified ethylene-vinyl acetate copolymer which comprises saponification of an ethylene-vinyl acetate copolymer in methanol in the presence of sodium hydroxide and added water in content falling within the scope of the claims wherein, the ethylene content is 5 to 60 mole % and the degree of saponification is at least 95 mol % and wherein the saponification reaction is conducted in a column in a manner as described per claim 2. See cols. 5-7 and especially Run 8 of Moritani et al. Moritani et al therefore anticipate the instantly claimed invention with the understanding that the process parameters per Moritani et al overlap in scope with the claimed process parameters.

As to the dependent claims, the limitations are either taught by Moritani et al, suggested by Moritani et al or would have been obvious to the skilled artisan and with a reasonable expectation of success.

Claim Rejections - 35 USC § 102

8. *Claims 1 and 4-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Plambeck, Jr.(U.S. 2,467,774), Hart et al(U.S. 4,377,621), Hori et al(U.S. 4,614,781) or JP 6345811(Abstract/English translation).*

Plambeck, Jr. discloses and exemplifies a saponification reaction in which 59/125/116 parts of sodium hydroxide, 160/480/400 parts of methanol and 200/250/250 parts of water and ice are added to an ethylene/vinyl acetate interpolymer, in an aqueous dispersion, so as to effect

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saponification of the ethylene/vinyl acetate copolymer. See Runs II, V and VI and cols. 3, 4, 9 and 10 of Plambeck, Jr.

Hart et al disclose a saponification technique in which an ethylene/vinyl acetate copolymer is reacted in a hydrocarbon medium with a low-boiling alcohol, typically in the presence of an alkali catalyst, wherein the medium contains 500 to 1500 ppm water and the degree of saponification of the ethylene/vinyl acetate copolymer ranges from 10 to 75 mol %. See, e.g., the Abstract, cols. 3-5 and the claims of Hart et al.

Hori et al teach a saponification reaction in which an ethylene/vinyl acetate copolymer, governed by a saponification degree of from 10 to 80 mol%, is dissolved in an organic solvent and is saponified in a reactor with an alkali alcoholate catalyst in the presence of water and a lower alcohol. More specifically, Hori et al exemplify a saponification technique wherein 7.2 g of water is added to a solution containing 2 kg(2000g) of an ethylene/vinyl acetate copolymer and wherein 27 g of water is used to terminate the reaction. See, e.g., the Abstract, cols. 4-7 and 10-13 of Hori et al.

JP'811 teaches a process involving the saponification of an ethylene-vinyl acetate copolymer which involves saponifying an ethylene/vinyl acetate copolymer in the presence of an alkaline catalyst, a cyanoacetate and 0.01 to 10 wt.% of water and a lower alcohol. More specifically, the Runs of JP'811 teach 0.3-3g of water is used with 700g of ethylene/vinyl acetate copolymer to engender a saponified product having a saponification degree of between 94 and 97mol %. One of ordinary skill in the art would have readily envisioned 100-100000 ppm water based on the copolymer.

Each of patentees supra therefore anticipate the instantly claimed invention with the understanding that the process parameters of patentees overlap in scope with the claimed process parameters.

As to the dependent claims, the limitations are either taught by patentees, suggested by patentees or would have been obvious to one having ordinary skill in the art and with a reasonable expectation of success.

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Conclusion

9. *The prior art made of record and not relied upon is cited as of being illustrative of the general state of the art.*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judy M. Reddick whose telephone number is (703)308-4346. The examiner can normally be reached on Monday-Friday, 6:30 a.m.-3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703)308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)892-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-8183.

J. M. Reddick
Judy M. Reddick
Primary Examiner
Art Unit 1713

JMR *JMR*
April 21, 2003